WHAT IS CLAIMED IS:

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- Shoulder or hip prosthesis comprising a humeral or femoral component presenting a concave articulation surface and an intermediate component presenting first and second convex articulation surfaces, intended to cooperate respectively with said concave articulation surface of said humeral or femoral component and with a concave glenoid or cotyloid articulation surface, natural or belonging to a glenoid or cotyloid component, wherein the locus of the instantaneous centres of rotation of said first convex articulation surface with respect to the concave humeral or femoral articulation surface, and the locus of the instantaneous centres of rotation of said second convex articulation surface with respect to said glenoid or cotyloid articulation surface, lie on either side of said first convex articulation surface.
 - 2. The prosthesis of Claim 1, wherein said first convex articulation surface is located inside a volume defined by said second convex articulation surface.
- 15 3. The prosthesis of claim 1, wherein said articulation surfaces are substantially in the form of portions of sphere.
 - 4. The prosthesis of Claim 1, wherein the first convex articulation surface and the humeral concave articulation surface are cylindrical, with rectilinear generatrix and with circular base, with their axis of symmetry substantially antero-posterior with respect to the articulation, while the second convex articulation surface and the glenoid articulation surface are substantially in the form of portions of sphere.
- The prosthesis of Claim 1, wherein said intermediate component comprises a dish forming said second convex articulation surface, a button
 being in one piece with said dish or immobilized therein and forming said first convex articulation surface.

- 6. The prosthesis of Claim 1, wherein said humeral or femoral component comprises a plate, forming the concave articulation surface intended to cooperate with said first convex articulation surface, and a part intended to be anchored in the humeral or femoral medullary cavity, said plate being connected to said part by a linking stem.
- 7. The prosthesis of Claim 6, wherein said plate is of non-circular shape.
- 8. The prosthesis of Claim 7, wherein the smallest dimension of said plate is disposed parallel to the sagittal plane (Figures 7 and 10).
- 9. The prosthesis of Claim 1, wherein said intermediate component is of substantially bi-convex shape.
- 10. The prosthesis of Claim 1, wherein it comprises a glenoid or cotyloid component forming said concave glenoid or cotyloid articular surface.
- 11. The prosthesis of Claim 1, wherein said humeral or femoral component is provided, at the level of its part forming said concave articulation surface, with at least one projection adapted to be engaged in a housing of corresponding shape made on said intermediate component.
- 12. The prosthesis of Claim 1, wherein said intermediate component comprises a washer immobilized in a dish forming said second articulation surface, the inner surface of said washer being adapted to limit the amplitude of the relative displacement between said humeral or femoral component and said intermediate component.
- 13. The prosthesis of Claim 1, wherein said humeral or femoral component is in two parts and comprises an anchoring stem on which is mounted an element defining said humeral or femoral articulation surface.

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